

WHAT IS CLAIMED IS:

1. A device for harvesting a blood vessel, comprising:  
a shaft having a lumen configured to accept an endoscope,  
the shaft having a proximal end and a distal end;  
a handle connected to the proximal end of the shaft;  
a head piece connected to a distal end of the shaft;  
a holding means connected to the shaft and spaced apart  
from the head piece for holding the blood vessel; and  
a transecting means connected to the shaft for transecting  
the blood vessel.
2. The device of claim 1, wherein the lumen is disposed  
between the handle and the holding means.
3. The device of claim 1, further comprising ligation means  
for ligating the blood vessel.
4. The device of claim 3, wherein the head piece defines an  
area between tissue overlying the blood vessel and tissue  
underlying the blood vessel.
5. The device of claim 4, wherein the holding means and the  
transecting means are concurrently disposed in the defined area.
6. The device of claim 5, wherein the holding means, the  
transecting means and the ligating means are concurrently  
disposed in the defined area.

7. The device of claim 4, further comprising at least one electrode disposed within the defined area.
8. The device of claim 7, further comprising a second electrode disposed within the defined area.
9. The device of claim 1, wherein said transecting means is slidable relative to the shaft.
10. The device of claim 1, wherein the head piece is configured to separate tissue from the blood vessel.
11. The device of claim 1, further comprising a first actuation means for operating the holding means.
12. The device of claim 11, further comprising a second actuation means for operating the transecting means.
13. A device for harvesting a blood vessel, comprising:  
a shaft having a lumen configured to accept an endoscope, the shaft having a proximal end and a distal end;  
a handle connected to the proximal end of the shaft for manipulating the device;  
a head piece connected to a distal end of the shaft;  
a vessel holder connected to the shaft and spaced apart from the head piece for holding the blood vessel; and  
a vessel cutter connected to the shaft for cutting the blood vessel.

14. The device of claim 13, wherein the lumen is disposed between the handle and the vessel holder.
15. The device of claim 13, further comprising a ligator for ligating the blood vessel.
16. The device of claim 15, wherein the head piece defines an area between tissue overlying the blood vessel and tissue underlying the blood vessel.
17. The device of claim 16, wherein the vessel holder and the vessel cutter are concurrently disposed in the defined area.
18. The device of claim 17, wherein the vessel holder, the vessel cutter and the ligator are concurrently disposed in the defined area.
19. The device of claim 16, further comprising at least one electrode disposed within the defined area.
20. The device of claim 19, further comprising a second electrode disposed within the defined area.
21. The device of claim 13, wherein said vessel cutter is slidable relative to the shaft.
22. The device of claim 13, wherein the head piece is configured to separate tissue from the blood vessel.

23. The device of claim 13, further comprising a first actuator for operating the vessel holder.

24. The device of claim 23, further comprising a second actuator means for operating the vessel cutter.

25. A method of harvesting vessels comprising:

providing a vessel harvesting device comprising a shaft having a lumen configured to accept an endoscope, the shaft having a proximal end and a distal end, a handle connected to the proximal end of the shaft for manipulating the device, a head piece connected to a distal end of the shaft, a vessel holder connected to the shaft and spaced apart from the head piece for holding the blood vessel, and a vessel cutter connected to the shaft for cutting the blood vessel;

locating a vessel to be harvested;

making an incision to expose the vessel;

inserting the vessel harvesting device into the patient through the incision;

dissecting the vessel from the surrounding tissue with the vessel harvesting device;

holding a side branch of the vessel using the vessel holder;

transecting the side branch of the vessel using the vessel cutter; and

removing the vessel.